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| 09/937,719 | 01/03/2002 | Toshiaki Takenaka | 43890-542 | 5526 |

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EXAMINER

FUNK, STEPHEN R

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 06/09/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/937,719

Applicant(s)
Takenaka et al.

Examiner
Stephen Funk

Art Unit
2854



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 22, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-19 and 21 is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-11, 13, 20, and 22 is/are rejected.
- 7) ☒ Claim(s) 7, 8, and 12 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on Apr 22, 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

The disclosure is objected to because of the following informalities: On page 6 line 25 "benefit" is misspelled. On page 8 line 12 "complementary" is misspelled. In claim 18 line 3 --a- - should be inserted before "printing" and "side", second occurrence. Appropriate correction is required.

Applicant is advised that should claim 3 be found allowable, claim 22 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The terminology "extends from" in claim 22 does not distinguish from "disposed on" in claim 3 since the "protrusion" of claim 3, by definition, extends from the surface of the plate.

Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 20 it cannot be accurately determined what structure is being positively recited. In line 1 the terminology "couplable" does not positively recite the following structure; only that it *may* be coupled to a plate. (Note that claims 11 and 12 positively recite the printing device "having a squeegee" and that the plate has already been positively recited in claim 1.) Accordingly, the paste removing member would also only be inferentially recited. Second, in line 3 it is not clear if the moving back squeegee is an element of the printing device or not. This recitation could be interpreted as only showing where the protrusion is located on the plate, not

necessarily that a moving back squeegee is positively recited as an element of the device. Third, in line 4 it is not clear if the two squeegees are positively recited or not. Also, in lines 3 - 4 "said paste removing member" lacks proper antecedent basis.

Due to the indefiniteness of claim 20 it cannot be examined relative to the prior art at this time.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 - 3 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Takashima (US 5,704,286). Takashima teaches a mask (11) with an opening area (11a) and a non-opening area (all areas other than 11a), a plate framework (16) with at least four sides, and a paste removing protrusion (11c) extending from a surface of the plate. The broad recitation of an opening area does not distinguish from the individual openings in the mask of Takashima. The functional recitation of the protrusion being a "paste removing" protrusion does not patentably distinguish from the structure of Takashima. With respect to claim 2 see Figure 1C and column 6 lines 16 - 25 of Takashima. With respect to claims 3 and 22, as broadly recited, the protrusion (11c) is disposed on the non-opening area since there are no openings within the protrusion.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima (US 5,704,286) in view of applicant's admission of prior art. Takashima teaches the plate as recited with possible exception of the opening area and non-opening area. Takashima teaches in prior art Figures 9 and 10 the conventionality of a mask having an opening area (4) and a non-opening area (2). It would have been obvious to one of ordinary skill in the art to provide the mask of Takashima with a conventional opening area and non-opening area in view of applicant's admission of prior art to provide easier transfer of the paste through the mask in the opening area. The functional recitation of the protrusion being a "paste removing" protrusion does not patentably distinguish from the structure of Takashima. With respect to claim 2 see Figure 1C and column 6 lines 16 - 25 of Takashima.

Claims 9 - 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima or Takashima in view of applicant's admission of prior art. Takashima does not specifically teach that the paste removing protrusion has the same smoothness and coefficient of friction as the rest of the mask. However, the cross-sectional views shown in Figures 1C and 2 and the teaching that the thickness of the protrusion portion is the same as the rest of the mask (column 3 lines 34 - 55, for example) indicates that the protrusion and the mask are made of the same material. It would have been obvious to one of ordinary skill in the art to manufacture the mask and the protrusion of Takashima, or Takashima in view of applicant's admission of prior art, from the same material so as to more efficiently manufacture the mask. Accordingly, the paste removing protrusion would have the same smoothness and coefficient of friction as the rest of the mask. With respect

to claim 11 the slanting area of the protrusion in Figure 1C appears to have a length the same as or longer than the thickness of the squeegee.

Claims 1 - 6, 13, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneoka et al. (JP 02-34,395). Kaneoka et al. disclose a plate comprising a mask (1) with an opening area (3, 4, 5) and a non-opening area (all areas other than 3-5) and a paste removing protrusion (1 - far left and right sides of Figure 1c) extending from a surface of the plate. The broad recitation of an opening area does not distinguish from the individual openings in the mask of Kaneoka et al. The functional recitation of the protrusion being a "paste removing" protrusion does not patentably distinguish from the structure of Kaneoka et al. Kaneoka et al. do not appear to disclose a plate framework. However, frames for supporting masks on all four sides are notoriously conventional in the art. It would have been obvious to one of ordinary skill in the art to provide the plate of Kaneoka et al. with a framework so as to simply support the mask. With respect to claim 2 see Figure 1c of Kaneoka et al. With respect to claims 3 and 22, as broadly recited, the protrusion is disposed on the non-opening area since there are no openings within the protrusion. With respect to claims 4 and 5 note that protrusions on the far sides of the mask in Figure 1c of Kaneoka et al. With respect to claims 6 and 13 since the protrusion of Kaneoka et al. is disposed at the sides of the mask it would be disposed on a side of the framework when the mask is attached to a framework.

Claims 7, 8, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 14 - 19 and 21 are allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note Figure 3 of Kato et al. ('984).

The following is an examiner's statement of reasons for allowability: With respect to claims 7 and 8 there is no motivation to make the protrusion of Kaneoka et al. integral with the framework. With respect to claim 12 Takashima does not teach the slanting angle of the protrusion being almost the same angle as the complementary of the squeegee's printing angle. With respect to claim 14 the prior art of record does not teach removing paste from a squeegee's non-printing side by means of a paste removing member.

Applicant's arguments with respect to claim have been considered but are moot in view of the new ground(s) of rejection.

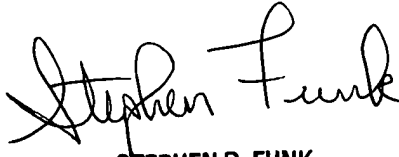
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Funk at telephone number (703) 308-0982. The examiner can normally be reached Monday - Thursday from 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Hirshfeld, can be reached at (703) 305-6619.

The fax number for *official* papers is (703) 308-7722, 7724. The fax number for those wishing an auto-reply verifying receipt of *official* papers is (703) 872-9318 or for After-Final actions is (703) 872-9319. Upon consulting with the examiner *unofficial* papers only may be faxed directly to the examiner.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at telephone number (703) 308-0956.

Stephen Funk
June 4, 2003


STEPHEN R. FUNK
PRIMARY EXAMINER